





Clinical Pediatrics

HISTORY AND EXAMINATION

VSD

To diagnose A cardiac case : ask what is the problem ? → some thing in the heart then ask about it is onset → more than 3 years → rheumatic heart

→ Less than 3 years → congenital → look for central cyanosis → yes fallot

→ No VSD

History

** COMPLAINT :

- Shortness of breath.
- Reaped chest infections .
- Growth failure
- Rarely : bluish discoloration of skin and MM

PRESENT HISTORY :

1- Analysis of complaint

- Onset : less than 3 years of age (mostly infections start at 2 months of age)
- Course : increasing & reapted
- Duration

2- Symptoms of the cause :

- Infections
- Drugs in 1^{st} trimester
- Irradiation
- History of maternal illness
- Associated genetic anomilies
- +ve family history
- If none of this is +ve → idiopathic case (most of cases)

3- C/P of th disease :

- Palpitation :
- Congested lung symptoms :
  - Dyspnea on exertion (feeding – playing if older child)
  - Dyspnea on rest (tachypnea)
  - Orthopnea (dypnea if sleep without high pillows)
  - Cough & expectoration reapeted
  - Hemoptysis
  - Failure to thrive

- Rt sided HF :
  - Puffy eyelids
  - LL edema
  - Abd distention & jaundice
- Low cariac output :
  - Peripheral coldness & sweating
  - Failure of growth
- Cyanosis :
  - During cry or straining (potentially cyanotic or acyanotic)
  - Cyanotic spells (to differentiate from fallot – should be –ve)

4- C/P of complications :

- Infective endocarditis :
  - Hematuria & splenomegaly (abdominal pain)
  - Fever(very high not respond to antipyritics) & rash – convulsions & mucle paralysis
- Failure to thrive
- Reapted chest infections
- Eisenmenger $ (cyanosis after 2-3 years of complain)
- Embolism : syncope & convulsions .

5- Investigations & TTT :

- ECG & X-ray & Echo
- Digoxin –foresamide – captiprol

PERINATAL HISTORY :

- Ante natal : asked previously in the present as cp of the cause
- Natal :
  - Prvious abortion
  - Cry & resus + others
- Postnatal :
  - Cyanosis & difficult breathing

FAMILY HISTORY :

- Maternal age
- -consanguinity
- Similar conditions

ExaminationFor VSD

GENERAL EXAMINATION :

- **Anthropometic measures .**
- **Vital signs**
- **General examination :**
  - Conscious level
  - General appearance (any genetic syndrome)
  - Neck : congested neck veins
  - Extremities :
    - Clubbing & cold exterimities
    - Pallor & cyanosis & jaundice
    - LL edema
- **Chest :**
  - Inspection : intercostals & subcostal retraction .
  - Auscultation : bilateral basal crepitations (lung congestion)
- **Abdomen :**
  - Palpation : liver & spleen for megaly
  - Percussion for Acites

LOCAL EXAMINATION :

- **Inspection & palpation :**
  - Precordial bulge
  - Others : scars & neins & chest deformity
  - Signs of Rt & Lt ventricular enlargement :
    - *Apex* :
      - Site : out & down
      - Localization : diffuse or localized
      - Force : tapping or forcible
    - *Pulsations* :
      - Epigastric pulsations
      - Left parasternal pulsations & thrill
  - Pulmonary HTN :
    - Pulmonary pulsations
- **Percussion :**
  - Dullness on pulmonary area
  - Dullness on lower 1/3 of sternum
  - Increased dullness on bare area .
- **Auscultation :**
  - 1st sound : Normal S1 on apex & tricuspid
  - 2nd sound : Accentuated S2 on pulmonary area / normal S2 on aortic area
  - Murmur :

- **Timing** : pansystolic
- **Character** : harsh
- **Site of max intensity** : left parasternal area
- **Propagation** : all over precordium



- **Aetiology** : Idiopathic
- **Disease :** congenital acyanotic heart disease most propably VSD
- **Compensation :** HF or not
- **Complications** : recurrent chest infections & stunted growth

Idiopathic congenital acyanotic heart disease most propably VSD compensated (or not) complicated by recurrent chest infections & stunted growth (+- other complications)

Fallot tetrology

History

The samae history as VSD except :

Complaint :cyanosis.

Analysis of the complaint :

- ❖ Onset of cyanosis
- ❖ Course
- ❖ Dyspnea with cyanosis
- ❖ History of cyanotic spells
  - ❖ Sever cyanosis & syncope & convulsions
  - ❖ Cause of this attacks
  - ❖ Duration of attack
  - ❖ The action of mother to relieve
  - ❖ Squatting of the child

Complocations :

- ❖ Esp brain abscess & thromboembolism
  - ➢ Weakness of limbs
  - ➢ Convulsions
  - ➢ Stroke
- ❖ No chest infections due to pulmonary oligemia

Examination

GENERAL EXAMINATION is the same as VSD esp clubbing & cyanosis is mor eprominent

LOCAL EXAMINATION :

❖ **Inspection & palpation :**

- Precordial bulge NO
- Chest deformity & dilated veins
- Scars (median sternotomy – lateral thoracotomy

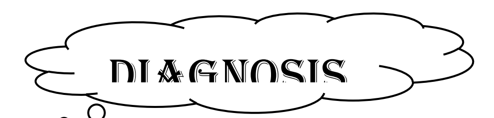
Signs of Rt vent enlargement

- APEX
  - o Site : out or normal
  - o Localization: diffuse (if RVE) or localized (if normal)
  - o Force tapping
  - o Systolic retraction
- Epigastric pulsations if RVE
- Left parasternal pulsations (mild)

No pulmonary HTN → No pulmonary pulsations but systolic thrill from stenosis

Auscultation

- S1 : normal
- S2 : accentuated & single
- Murmur :
  - Timing : Ejection systolic
  - Quality : very harsh
  - Max : pulmonary area
  - Propagate
- No additional sounds



- **Aetiology** : idiopathic
- **Disease** : congenital acyanotic HD mostly fallot tetrology
- **Compensation** :compensated or not (HF or not)
- **Complications** : cyanotic spells & stunted growth

Idiopathic congenital cyanotic heart disease most propably fallot tetrology complicated by cyanotic spells & stunted growth

Rheumatic heart

History

COMPLAINT : shortness of breath & painful joint swelling

PRESENT HISTORY :

- **Analysis of complaint** :
  - Onset of disease .→ after an attack of artharitis
  - Course :
    - Affect large joints
    - fleeting in character
    - redness& swelling
    - inability of movement
- **C/P of cause** :
  - History of reapted attacks of throat infections
  - Symptoms of rheumatic activity (arthritis – carditis – chorea - erythema)
- **C/P of disease** :
  - **Carditis :**
    - palpitation
    - Fever
  - **Left sided heart failure** :
    - *Pulmonary congestive symptoms* ;
      - *Dyspnea* :
        - At rest or on exertion
        - Association : orthopnea – paroxysmal nocturnal dyspnea
        - cyanosis
      - *Cough* :
        - Relation to exertion
        - Character : dry (congestion) – productive (infection)
        - Cough of *cardiac* origin is related to exertion & dry with dyspnea
      - *Hemoptysis* : not common
    - *Low cardia output symptoms* :
      - *Syncope*
      - Easy fatigability
      - Coldness of exterimities
      - Failure to thrive
      - Claudications (if old)
  - **Rt sided HF**:
    - *Edema* : LL or eyelid
    - *Pain* in rt hypochondrium & jaundice & Ascites
    - *GIT congestion* : vomiting & dyspepsia & Anorexia
  - **Other Syptoms of rheumatic activity :**

- *Chorea* : (abnormal movements)
- *Erythema marginatum*
- *pericarditis* (Chest pain)
- *palpitation* (on exertion)

- **Complications:**
  - Infective endocarditis (fever –strokes –hematuria)
  - Rheumatic activity (arthritis & other major symptoms now)
- **Investigations & treatment** :
  - Echo – ECG – X-ray – cultures
  - Digitalis –diuretics- long acting penicillin – hospitalization

PAST HISTORY :

- Previous attacks of tonsillitis
- Any previous activity

FAMILY HISTORY :

- Similar conditions in the family

Nutritional is difficult to obtain as child is old > 5 years & perinatal + developmenatal is irrelevant

Examination

GENERAL EXAMINATION :

- **Decubitus** : may be orthopnic
- **Built** : failure to thrive
- **Complexion** : cyanosis & pallor & gaundice
- **Neck** :
  - Visible Carotid pulsations : AR
  - Carotid thrill : AR or AS (+ thrill on aortic area)
  - Neck veins : congested
  - Demussat sign : in AR
- **Exterimities** :
  - Clubbing
  - LL edema
  - SC nodules
  - Splinter Hge & osler's nodes
- **Chest examination** :
  - Inspection : subcostal & intercostals retraction
  - Auscultation : bilateral basal crepitations
-
- **Abdominal examination** :
  - Palpation of liver & spleen
  - percussion for ascites

- **Neurological Examination** :
  - Focal neurological signs .

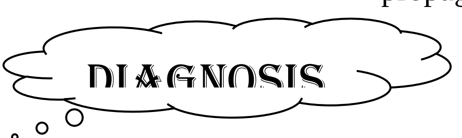
LOCAL EXAMINATION :

- **Inspection & palpation** :
  - *Pericordial bulge* & scars &dilated veins & chest deformity According to the lesion
  - **Mitral Regurge** :
    - Apex :
      - Doun & out
      - Localized
      - Hyperdynamic
    - Pulmonary pulsations
    - Other pulsations (epigastric & left parasternal) only if RVE
    - Thrill : systolic thrill on apex
  - **Aortic Regurge** :
    - Apex
      - Down & out
      - Localized
      - Hyperdynamic
    - No other pulsations
    - Thrill : diastolic thrill on neck not aortic
    - Other peripheral signs of AR :
      - 3 in neck (Corrigan sign – Demussat sign – thrill on carotid)
      - 3 in UL: (big pulse volume – water hammer pulse – reduced capillary filling)
      - 3 in LL : (pistol shout on femoral – Helll's sign –
  - **Aortic Stenosis**:
    - Apex :
      - Down & out
      - Localized
      - Heaving
    - No other pulsation : no RVE
    - Systolic Thrill on 1st aortic area & propagated to neck
    - Peripheral pulsation weak & plateau pulse
  - **Mitral stenosis** (very rare in young)
    - Apex :
      - Normal site
      - Localized
      - Slapping
    - Pulmonary pulsations
    - Left parasternal & epigastric pulsations if RVE
    - Thrill : on apex
- **Auscultations** :

- **Mitral Regurge** :
  - S1 : muffled on apex & normal at tricuspid
  - S2 : normal on pulmonary & aortic
  - Murmur :
    - Pansystolic
    - Max at apex
    - Radiate to axilla only (base is normal)
    - soft
- **Aortic Regurge** :
  - S1 : normal on apex & tricuspid
  - S2 :
    - Normal at pulmonary
    - Muffled at aortic area
  - Murmur :
    - Early diastolic
    - Max at 1st aortic area
    - Propagate to 2nd aortic area
- **Aortic stenosis**:
  - S1 : normal on apex & tricuspid
  - S2 :
    - Normal at pulmonary area
    - Muffled at aortic area
  - Murmur :
    - Ejection systolic
    - Max at 1st aortic area
    - Propagate to apex & 2nd aortic area & carotid
    - Soft
  - Weak pulse
- **Mitral stenosis** :
  - S1 : accentuated at apex & normal at tricuspid
  - S2 : normal at pulmonary & aortic
  - Murmur :
    - Middiastolic with presystolic accentuation
    - Max at apex
    - Do not propagate
    - Rumbling
  - Weak pulse

- **Double mitral**
  - S1 : accentuated on apex
  - S2 : normal
  - Murmur :
    - pansystolic of regurge cover the middiastolic of stenosis
    - heard max at apex but with additional sound

- propagate to axilla



- **Ateiology** : Rheumatic heart disease
-**disease** : most propably MR with pulmonary HTN &chamber enlargement
-**compensation**: compensated or not (HF)
-c**omplications** : not in activity & not in infective endocarditis or arrhythmia

Rheumatic heart disease most propably MR with pulmonary HTN &chamber enlargement compensated or not (HF: not in activity & not in infective endocarditis or arrhythmia

General Cardiac Sheet

Any cardiac sheet you can cover the following :

<u>**COMPLAINT :**</u>

- reapted chest infections
- cyanosis
- shortness of breath
- growth failure

<u>**PRESENT HISTORY**</u> :

- <u>**Analysis of complain**</u> :
    - According to complain (OCD)
    - In reapted cheest infections : (number of attacks – onset of 1^{st} attack – hospitalization during attack)
- <u>**Aetiology**</u> : (last part t be asked)
    - Prenatal history in congenital hear t
    - Symptoms of rheumatic activity in RHD (arthritis –carditis- chorea – rash)
- <u>**Symptoms of a cardiac disease**</u> :
    - <u>***LSHF :***</u>
        - Pulmonary congestive symptoms (dypnea – cough – hemptoysis)
        - Low cardiac out symptoms (syncope – peripheral coldness – growth failure)
        - Cyanosis (OCD)
    - <u>***RSHF***</u> :
        - Hepatic congestion
        - LL & eye lid edema
        - Abdominal wall edema (clothes mark on abdomen)
        - GIT congestion
- <u>**Complications**</u>
    - <u>Infective endocarditis</u>
    - <u>Embolism</u>
    - <u>Eisenmenger $</u>
    - Failure to thrive
    - Reapted chest infections
- <u>**Investigations & TTT**</u> :
    - X-ray – CT – Cultures
    - TTT (if RHD ask : small white tablets (cortisone)) / operation date

Mahmoud Behairy

Cerebral Palsy

History

COMPLAINT : Delayed motor and mental development & convulsions

PRESENT HISTORY :

- **Analysis of the complaint** :
  - **If** delayed motor or menal development → developmental history
  - If convulsions → duration of attack (more or less than ½ h) / focal or generalized / conscious level / number of attacks per year
- **Aetiology** :
  - **Ante natal** :
    - Fever & rash for TORCH infections
    - Drud intake in 1st trimester
    - Exposure to radiation
    - DM & pre-eclamspia
  - **Natal** :
    - *Duration of pregnancy* .
    - *Type of delivary* :
      - C.S : why ?? → obstructed labor (failure of VD) – or preeclampsia
      - VD :
        - where (home or hospital)
        - period from true labor pain till labour (for prolonged labor & hypoxia)
        - Use of forceps or ventose
        - Sedation during labour
    - *Condition of child after birth* :
      - Immediate cry (1st 5 minutes) or delayed
      - Resuscitation required
      - Need for incubation
  - **Post natal** :
    - Cause for *incubation* (cyanosis & jaundice & sepsis & convulsions)
    - Respiratory difficulties
    - History of *meningitis* (fever & convulsions & neck stiffness)
    - History of *trauma* (ICH)
- **C/P of disease** :
  - **Type**
    - *Motor development* : delayed
    - *Limb Paralysis* :
      - Hand & foot movement & spasticity
      - Atrophy of muscles / bed sores
    - *Bulber paralysis* : (motor cranial nerves)

- ***3&4&6 CN*** : **ptosis & squint**
- ***5 CN*** : mastication
  - **Difficulty in breast feeding**
  - Difficulty in mastication of food

- ***7 CN*** :
  - Opened eye during sleep
  - Food acculmulation in one side of mouth
  - **Mouth deviation in smiling**
- ***9&10 CN*** :
  - Dysphagia
  - Food regure from nosee
  - Change of voice
  - **Reapted choking & chest infections**

▪ *Sensations* : (heat and cold ' touch) preserved

- **Distribution** :
  - Which limb is more affected UL or LL ?
    - 2UL + LL : quadriplegic
    - UL > LL : biplegic
    - LL> UL : Diplegic
    - One side : hemiplegia
- **Association** :
  - *MR* :
    - Speech & maternal recognition
    - Sphenteric control
  - *Deafness & blindness*
  - Squint
  - *Convulsions*
  - Chorea (abnormal movements)

- **Complications** :
  - Chest infections
  - Failure to thrive
  - Bed sores
- **Investigations & TTT**:
  - CT & TORCH screening
  - Physiotherapy –orthopedic – hearing aids

PAST HISTORY : Significant events : trauma – surgery – accidents / chronic illness

FAMILY HISTORY : Consanguinity & similar condition sin family

NUTRITIONAL & VACCINATION : in short or not as they are irrelevant

Examination

GENERAL EXAMINATION :

- **General appearance ;**
  - Underweight
  - Spatic posture
- **Head circumference**
- **Conscious level :**

NEUROLOGICAL EXAMINATION :

- **Cranial nerves**
  - 3,4,6 : eye movements & squint & convergence
  - 5 : chewing
  - 7 : smile & close eye against resistance
  - 9,10 : palatal & gag reflex
- **Motor examnation** :
  - ***Inspection*** :
    - Muscle state : wating of muscles (prominent joints – MAC < 16 cm)
    - Trophic changes : no bed sores in most of cases & loss of hair
    - Abnormal position :
      - Scissoring of LL
      - Opithotonus position
      - Contracture of joints
    - Abnormal movement s : chorea
  - ***Tone*** :
    - Clasp knife spacticity affect antigravity muscles mainly in spastic type (most o f cases)
  - ***Power*** :
    - Mostly not tested as patient is not co operative but it is decreased up to paresis
  - ***Reflexes*** :
    - Deep reflexes : exagarreted
    - +ve babniski sign
    - Persistent neonatal reflexes
    - +ve pathological reflexes
      - Clonus
      - Adductor reflex
      - Patellar reflex
  - ***Sensations*** : usually intact
  - ***Gait*** : if he can walk

DIAGNOSIS

- **Aetiology** : mostly post anoxic or kernicterus
- **Anatomy** ; hemiplegic , quadriplegic, diplegic
- **Pathology** : spastic cerebral palsy
- **Association** : MR , convulsions ,hearing deficit

For example : post anoxic quadriplegic spastic cerebral palsy associated by MR & convulsions

Hydrocephalus

History

COMPLAINT : passive increase eof head circuferance since birth

PRESENT HISTORY :

- **Analysis of complain :**
  - **Onset** : of head enlargement
  - **Course** : was increasing
  - **Duration** : still increasing or not (progressive or stationary [after shunt])
- **Aetiology :**
  - perinatal history as cerebral palsy
- **C/P disease :** as C.P
  - Motor development & mental
  - Limb paralysis
  - Cranial nerve paralysis (bulbar affection)
  - Sensations
  - **Manifestations of ↑ ICT** :
    - Sever persistent headache
    - Projectile vomiting
    - Papliedema
    - Blurring of vision
- **Complications** :
  - Spastic CP (add distribution & association)
- **Investigations & TTT** :
  - CT or MRI
  - **Shunt** (device or connector) :
    - when & where –
    - any problems arise after it (infections) –
    - did he change it and why ?

Examination

GENERAL EXAMINATION :

- **General appearance :**
  - Failure eto thrive
  - Spastic posture
- **Head circumference**
- **Head manifestations of hydrocephalus** :
  - Opened & bulging Ant & post fontanelles
  - Widely separated sutures
  - Stretched scalp skin with visible veins
  - Sunset eye
  - Craniotabes
  - Transillumination test (need darkness)
  - Percussion of suture line (resonant note)
- Back & spine examination for menigocele or menigomyocele

NEUROLOGICAL EXAMINATION :

As cerebral palsy

- **Cranial nerves**
- **Motor :**
  - Muscle contracture
  - Tone : hypertonic except with menigomyelocele
  - Power
  - Reflexes : exaggerated

DIAGNOSIS

- Aetiology : idiopathic or any other cause
- Pathology : arresseted or progressive hydrocephalus
- Compications : spastic quadriplegic C.P

General Neurology Sheet

Any neurology sheet you must cover :

COMPLAINT :

- Developmental delay
- Convulsions
- Head enlargement

PRSENT HISTORY :

- **Analysis of complaint** : according to coplaint (OCD)
- **Aetiology** : perinatal history
- **Symptoms of disease** :
  - Motor development (if not said in the analysis)
  - Limb paralysis & distribution
  - Cranial nerve affection
  - Sensations.
- **Associations** :
  - Mental retardation (mental developmental history)
  - Hearing
  - Vision
  - Convulsions (duration of attack – number of attacks in year – focal or generalized)
  - Chorea .
- **Complications** :
  - Chest infections
  - Bed sores
  - Failure to thrive
- **Investigations & TTT :**
  - CT & MRI & TORCH SCREEN
  - Physiotherapy & orthopedics & hearing aids / shunt for hydrochepalus

Abdominal Sheet

COMPLAINT : abdominal distention – abdominal pain – jaundice – pallor - hematemsis

PRESENT HISTORY :

- **Analysis of the complaint** : OCD as usual
- **Symptoms of system** :
  - **Hepatobiliary system** :
    - ***Hepatitis*** :
      - Rt hypochondrial pain & distention
      - Jaundice & dark urine
      - fever
    - ***LCF :***
      - Bleeding tendency
      - Encephalopathy
      - LL edema
    - ***Cholestasis*** :
      - Itching
      - Color of stool : clay colored
      - Color of urine : dark
    - ***Hematemsis :***
      - Number of attacks
      - Amount of bleeding
      - Color
      - Contain food particles or not
      - Bleeding per rectum
      - Melena
      - Need for blood transfusion
  - **Abdominal pain & distention** :
    - ***Pain :***
      - Site & severity & nature
      - Relation to meal
      - Radiation
      - What ↑ and what ↓
    - ***Distention*** ;
      - Onset – course – duration
  - **Upper GIT symptoms** :
    - ***Vomiting*** – nausea – anorexia
    - Dysphagia – ***dyspepsi***a
    - Flatulence
  - **Lower GIT symptoms** :

- Constipation
- Diarrhea (frequency –amount – consistency – color)
- Bleeding per rectum (blood in stool)
- Melena (black stool) if not askred with hematemsis

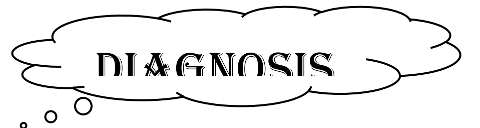
- **Symptoms of renal disease** :
  - ***Kidney*** :
    - Loin pain & tenderness
    - High fever (suggest Pyelonephritis)
  - ***Glomeruli*** :
    - Tea colored urine
    - Decreaed amount of urine
  - ***UTI :***
    - Frequency
    - Urgency
    - Incontence
- **Symptoms of blood disease** :
  - ***Chronic hemolytic anemia*** :
    - Manifestations of anemia :
      - Lack of concentration
      - Dizziness
      - Syncopal attacks
      - Easy fatigability
      - Pallor
      - Repeated muscle cramps
      - Chest pain (angina)
    - Frequent blood transfusion
    - Abdominal distention (HSM)
    - Color changes :
      - Normal urine except after blood transfusion as it contain dysferal
      - Dark stool
      - Jjaundice
    - +ve family history
    - Characteristic facies
    - Type of chronic hemolysis :
      - Age of presentation : > 6 months (not spherocytosis nor α thalasemia)
      - Splenomegaly : not SCA
      - +ve history of consanguinity (confirm autosomal recessive of thalasemia)
      - Not in attacks- (not SCA or G6PD)
      - no history of drug or food intake (not G6PD)
      - Most propably β thalasemia

    - **Complications :**
      - Complications of blood trans fusion (hepatitis)

- Hyperslenism :
  - history of splenectomy
    - When & why (traumatic rupture or hypersplenism)
    - Vaccines before splenectomy
- Hemosiderosis :
  - *Bronze discoloration* of skin
  - *DM* (polyuria & polydepsia & loss of wt & polyphagia & insulin intake)
  - *Peripheral neuritis*
    - Tingling & numbness of foot & hand
  - *Stunted growth*
  - *HF*
  - *Signs of puberty* (menarche)
  - *Gall stones*
    - Localized abdominal pain in site of gall bladder
    - Fried and fatty meal increase the pain
  - *Crises*
    - Hyperhemolytic : sudden sever pallor – dark urine
    - Aplastic : oral ulcers – fever – purpura
    - Vaso-occlussive : painful swelling in hand & feet

- ***Leukemia :***
  - *Prolonged fever*
  - Arthalgia & arthritis
  - *Purpuric eruptions*
  - Any sweeling (*lymphadenopathy*)
  - Reapted infections
  - *Pallor*

- **General toxemic symptoms** :
  - Night fever & night sweat & anorexia & loss of weight



For example : Chronic hemolytic anemia mostly β thalasemia complicated by chronic hepatits , hyprsplenism , hemosiderosis

Mahmoud Behairy

Examination for chronic hemolytic anemia

GENRAL EXAMINATION :

- ***Measurements*** :
  - Stunted growth (fromm chronic anemia- endocrinal disturbances)
  - Large head (expansion of medullary cavities)
- ***Vital signs*** :
  - Manifestations of hyper dynamic circulation & big pulse volume
- ***Head*** :
  - Eye : mild jaundice
  - Mouth : pallor
  - Skin color : greenish brown (earth ground)- due to pallor + jaundice +hemosiderosis
  - Mongoloid features :
    - Depressed nasl bridge
    - Prominent maxilla
    - Protruded upper central incisior
- ***Neck*** ;
  - Lymphadenopathy

SYSTEM EXAMINATION ;

- Abdominal :
  - Full abdominal examination especially palpation ;
    - Huge splenomegly & hepatomegaly
- Heart :
  - Hemic murmur

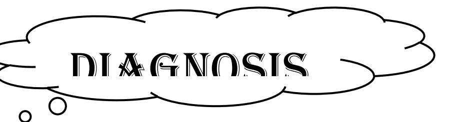
Purpura

<u>COMPLAINT</u> : reddish spots with or without mucous membrane bleeding

<u>PRESENT HISTORY</u> :

- ***<u>ANALYSIS of complaint</u>*** ;
  - ***<u>Onset</u>*** :
    - How did it started ? gradually
    - Did ti preceeded by upper respiratory tract infection ? with ITP
  - ***<u>Course</u>*** :
    - Regressive & short with ITP
    - Prolonged with aplastic anemia
    - Progressive with leukemia
  - ***<u>Duration</u>*** : how long ?

- ***<u>Symptoms of disease</u>*** ;
  - ***<u>Purpura characteristics</u>*** :
    - Color and does it changes ?
    - Site of distribution
    - Size
    - Elevated or not
    - Itching
    - Spontaneous without trauma or not
  - ***<u>Bleeding per orifices</u>*** :
    - Site (hematuria – bleeding gums – epistaxis ….)
    - Intracranial Hge (convulsions – syncope)
    - Amount
    - Need for blood transfusion
  - ***<u>Exclude</u>*** :
    - Aplastic anemia :
      - <u>History of drug intake (cytotoxic drug</u>)
      - <u>Fever not respond to antipyretics</u>
      - <u>Manifestations of anemis</u> (pallor – easy fatigability – dizziness)
    - Leukemia :
      - <u>Oral ulcers</u> & infections
      - <u>***Repeated*** infections & arthritis</u>
      - Continuous Fever
      - <u>Lymhadeopathy</u> (swellings)
      - Abdominal swelling (organomegaly)
  - ***<u>History of blood transfusion</u>*** (rarely done in ITP and if done only one time)
- ***<u>Investigations & TTT</u>*** :
  - CBC- BM biopsy
  - What TTT & prednisone ? how long ? and how many tab /day ?



Generlized purpuric eruptions without pallor ,without splenomegly ,without lymphadenopathy mostly ITP post viral

Examination

General examination :

- Examine purpura for
  - Distribution : generalized
  - Raised or not : raised
  - Size : pinpoint
  - Color : red when fresh chage with time
- Look for pallor
- Look for intact radius
- Look for lymphadenopathy

Abdominal examination :

- Detect hepatosplenomegaly

D.D

Generalized purpuric eruptions + recent blood transfusion + pallor

- ***With splenomegaly*** :
  - Complicated Chronic hemolytic anemia (with megaloplastic crisis _ aplastic crisis – hyperhemoltic crisis [associated G6PD def] - hypersplenism)
  - Leukemia or lymphoma
  - Storage disease
- ***No splenomegly*** :
  - Active bleeding in : ITP – HENOCH schonlein purpura – leukemia – TAR $
  - Eban $
  - Aplastic anemia (fanconi anemia)

Hemophilia

COMPLAINT : ecchomotic patches over skin – bleeding from minor trauma – prolonged bleeding after injections

PRESENT HISTORY :

- ***Analysis of complaint*** :
  - *Onset* : since birth with circumcision
  - *Course* : increasing after minor trauma
- ***Symptoms :***
  - *Ecchomtic characteristics* :
    - Size & site (excessive)
    - Raised
    - Color : purple then green
    - Take long time to disappear
  - *Bleeding* :
    - Swelling of joints & painful (hemarthrosis)
    - Bleeding per orifices 7& MM bleeding
- ***Complications*** :
  - Intracranial hge
  - Blood transfusion
  - Stiffenees of joints
- ***Exclude hepatic failure*** :
  - Jaundice & ascites then he start bleeding

PERINATAL HISTORY :

- Bith condtion of child : bleeding from umbilical stamp
- Need for resus or incubation

FAMILY HISTORY (IMP) :

- Similar conditions in family in males from the mother side (his siblings – his uncles of mother and their sons)
- Consanguinity
- Previous abortions

Marsmus

<u>COMPLAINT</u> :

- <u>Loss of weight or failure to gain weight</u>
- Chest infections (cough - wheeze & dyspnea)
- Gastroenteritis (diarrhea & vomiting)

<u>PRESENT HISTORY</u> :

- **<u>Analysis of complaint</u>** : OCD
- **<u>Aetiology</u>** :
  - ***<u>D.D of failure of growth</u>*** :
    - Pyloric stenosis : vomiting since birth
    - <u>Congenital heart</u> : cyanosis and dyspnea with feeding
    - <u>Tuberculous toxemia</u> : night fever –night sweating – anorexia – chronic cough any family member with TB
    - UTI & chronic kindney problem : problems with urination freq – urgency – dysuria
    - <u>Malabsorbtion</u> : chronic diarrhea
    - <u>Heavy parasitic infestation</u> : repteated GE and intake of anihelmenthics
  - ***<u>Nutritional history</u>*** :
    - ***<u>Type of feeding</u>*** :
      - **<u>Breast feeding</u>** :
        - Satisified or hungery after feed :
          - ***Satisified*** : sleep – complete his usual activities – well growth number of defecations (4-5) – urination (5-6)
          - ***Hungery*** :
            - Residual milk in breast after fed → infant problem (cleft lip or palte – oral mnilasis) he cannot suck well
            - No residual milk : <u>scanty breast milk</u>
      - **<u>Artificial feeding</u>** :
        - ***Type of milk*** :
          - S-milk : the spoon is for 60 cm of water
          - Non s-milk : for 30 cm of water
        - ***Amount per fed:***
          - Amount = (age x 10) + 100 = …. Cm /fed
          - If less cause (inadequate amount / fed)
        - ***Concentartion of fed*** :
          - How many spoons per fed ?
          - Depend on type of milk
          - If less (diluted milk formula)
        - ***Number of fed*** :
          - Since birth → 4 ms (6-7 feds)
          - 5ms→ 10 ms (5 feds) 11 →12 ms (4 fed s)
    - ***<u>Weaning</u>*** :

- Onset : Did you give him other foods ? if not or late → delayed weaning
- Amout : is it enough
- What did you gave to him ?
  - Carb sources : rice – potatoes – مهلبية -بطاطا
  - Protein source: لحمة – شربة خضار – فراخ – كبدة – صفار
- Supplementations : iron – folic acid

- **Symptoms of disease** :
  - ***Sever loss of SC fat*** from ant abd wall- buttocks- buccal pad of fat
  - ***Apatite*** : good appatite and irritable & continous cry for food
  - ***Stools*** : color – smell – amount (scanty dry greenish offensive bulky) [hungar diarrhea]
  - ***Urine*** : amount : little (dehydration)
- **Complications** :
  - ***Repeated chest infections*** (infections on ches & hospitalization)
  - ***Anemia*** (pallor)
  - Hypothermia (temp low or high)
  - Oral moniliasis & napkin dermatitis
  - Dehydration & electrolyte imbalance
- **Investigations & ttt**
  - X-ray & CBC
  - What TTT

PERINATAL HISTORY :

- History of prematurity – ***twins***

DEVELOPMENTAL HISTORY : may be delayed (delayed walking)

DIAGNOSIS

Case of marasmus secondary to(delayed weaning & reapted attacks of GE) – complicated by (repeated chest infections and anemia & dehydration & hypothermia) { say the degree if the case is examination)

Examination

GENERAL EXAMINATION :

- **Measurements** :
  - Under weight on his percentile / height is below 3rd centile
  - MAC is below 12 cm
- **Vital signs** :
  - Body temp is low
- **Head :**
  - Mouth :
    - Look for pallor
    - angular stomatitis & oral monilasis
    - buccal bad of fat (lost in 3rd degree)
  - senile facies
- **Exterimites** :

- Look for SC fat to determine degree
- Look for muscle atrophy

<u>SYSTEM EXAMINATION</u> :

- **<u>Cardiac</u>** :
  - Auscultate for CHD
- **<u>Chest :</u>**
  - Auscultate for brochiecteis ot tb
- **<u>Abdominal</u>** :
  - Palpate for renal anomiles or
  - hepatic : abdominal distention or hepatomegaly

WELCOME CLASSIFICATION FOR NUTRITIONAL DISORDERS

YOU SHOULD KNOW THE FOLLOWING

1- <u>Age of child</u> then the expected weight for age
2- <u>Weight</u> of child
3- <u>Edema</u> or not

- ***<u>If weight is more than 60 % of expected weight</u>***
  - *Without edema* : simple underweight
  - *With edema* : kwashiorkor
- ***<u>If weight is less than 60 % of expected weight</u>*** :
  - *Without edema* : marsmus
  - *With edema* : marsmic-kwoshiorkor

<u>Example</u> :

Child weight is 4 kg at 8 months without edema (marsmus as his weight is 50% of expected)

Mahmoud Behairy

Kwashiorkor

COMPLAINT :

- Edema of face and limbs around eye
- May be chest infection or gastroenteritis

PRESENT HISTORY :

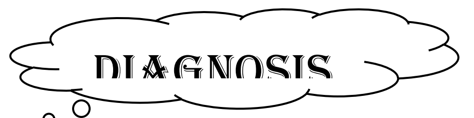
- **Analysis of complaint :**
  - **Onset** : sudden or gradual
  - **Course :**
    - Where did it started ? in dorsum of feet
    - Did it appear in LL & dorsum of hands& arms then genitalia then generalized –
    - Does colthes mark his abdomen (ascites not common)
  - **Duration** :
    - Since when
  - **DD of edema** :
    - **Hepatic** :
      - Jaundice – fever – vomiting – rt hypochondrial abdominal pain
    - **Cardiac** :
      - Dyspnea on feeding or playing
      - Orthopnea & paroxysmal nocturnal dyspnea
      - Palpitation
    - **Renal** :
      - Hematuria – oliguria
    - **Allergic**:
      - History of drug or food intake before it
      - Eryhthema & ithching
      - Chest wheezes
- **Aetiology** :
  - Detailed nutritional history ss marsmus with stress on weaning part
- **Symptoms** :
  - GIT manifestations : anorexia Diarrhea & vomiting
  - Hair changes : light in color – easily detachable
  - Skin changes : fissuring – ulceration – hypopigementation
- **Complications** :
  - **Anemia** : pallor
  - Hepatomegaly : abdominal sweeling on rt hypo
  - **Repeated chest infections**
  - Repted gastroenteritis
  - Hypothermia

PERINATAL :

Duration of pregnancy : prematurity or twins or new brother (maternal deprivation)

DEVELOPMENTAL :

Delayed mental development due to mental changes (apathy and lethargy) And motor (delayed walking



A case of kwashoriokor secondary to wrong weaning complicated by reapted infections & anemia

Examination

GENERAL EXAMINATION :

- State of conscious : asses if child is irritable – apathetic – miserable
- **Measurements** :
  - Failure to thrive masked by edema & increased SC fat
- **Vital signs** :
  - Body temp is low
- **Head :**
  - Hair : examine for color – amount – strength : light sparse & easily detached
  - Eye : look in cornea for keratomalacia
  - Mouth :
    - Look for pallor (anemia)
    - angular stomatitis (vit deficiencies) & oral monilasis (infections)
  - look for facial edema
- Exterimites :
- **Exterimites** :
  - Look for SC fat by measuring skin fold thickness to determine if it is lost (marasmic-KWO) or increased (KWO)
  - Look for muscle atrophy
  - Crackling – fissuring – ulcerations – hypopigmentation (especially buttocks & groin)
  - Look for edema of feet & dorsum of both hands

SYSTEM EXAMINATION :

- **Cardiac** :
  - Auscultate for CHD
- **Chest :**
  - Auscultate for brochiecteis ot tb
- **Abdominal**
  - abdominal distention or hepatomegaly by palpation and inspection

Nephrotic syndrome

COMPLAINT : edema of face (around eye) and LL – general malaise

PRESENT HISTORY :

- **Analysis of complaint** :
  - **Onset** : gradual or sudden and where it started ? in eyelids
  - **Course** :
    - Is it more in morning or evening (puffiness)
    - Is it increasing ?
    - Does it appear in dorsum of hand , scrotum , LL
    - Abdominal distention & mark of clothe on his abdomen & pleural effussion
  - **Duration** : when did you notice ?
  - **DD of edema**
    - Hepatic
    - Cardiac
    - Nutritional :
      - His food contain sufficient aamounts of proteins (meat – liver – eggs) ?
      - Hair & skin changes of kwashiorkor
    - Allergic
- **Symptoms of disease** :
  - **Edem**a : said before
  - **Exclude** other renal diseases:
    - Oliguria & Hematuria
    - Headache
- **Complications** :
  - **Infections** :
    - Chest : fever – cough- expectoratin
    - Peritoneum : sever abdominal pain & high fever
    - Urinary : dysuria – fever – loin pain
    - Skin : cellulites
  - **Thromob-embolic** complications ;
    - Convulsions – paralysis
  - **Hypovolemic shock** :
    - Syncope & sever hypotension
- **Ask the abdominal questions** ?
  - Hepatobiliary system
  - Upper GIT
  - Lower GIT
  - Abdominal pain & swelling
- **Investigations & TTT** :
  - Urine analysis & blood tests & renal biopsy
  - Cortisone (the white tab) times – for how long – response)

NUTRITIONAL HISTORY :

To exclude nutritional edema

PAST HISTORY :

Previous attacks : relapses

DIAGNOSIS

A case of generalized edema most propably nephrotic syndrome complicated by chest infections & skin infections

Examination

GENERAL EEXAAMINATION :

- Vital signs measurement **(esp BP to exclude other renal disease**)
- Anthropometric measurement
- **Face : edema of face**
- **Eye : puffiness of eyelids** – jaundice of sclera (exclude hepatic edema)
- Mouth ; pallor & cyanosis (exclude cardiac)
- Neck veins congestion (exclude cardiac)
- **Exterimites : LL edema**
- Chest examination & cardiac examination : auscultate for CHD or RHH

ABDOMINAL EXAMINATION :

- **Inspection** :
  - Look for *ascites* : look for generalized abdominal distention & bulging flanks
  - Look for cushioniod feastures (obesity & striae)
  - Look for *scrotal edema*
- **Palpation :**
  - Superficial palpation for tenderness & rigidity
  - *Liver & spleen palpation* to exclude hepatic edema)
  - *Kidney palpation* for tenderness or masses (other renal problems)
- **Percussion** :
  - *Percuss for ascites* (shifiting dullness)

Down Syndrome

COMPLAINT : delayed motor & mental development – reapted chest infections

PRESENT HISTORY :

- **Analysis of complaint** :
  - Developmental history
- **Symptoms of disease** :
  - **Motor development** :
    - When to head support : 3 months
    - Sitting with support : 5 months
    - Sitting without support :7 months
    - Standing : 10 months
    - Walking : 15 months
  - **Mental development** :
    - Social smile : 2 months
    - Maternal recognition : 6 months
    - Say mama & dada 9 months
    - Say 3 word sentence : 2 years
  - **Measures** :
    - Delayed dentiotion
    - Failure to thrive
    - Testis is in place
  - **Features** :
    - Do you feel that his facial features is different from his siblings ?
- **Other systems** :
  - **Chest** :
    - Ask : infestions on chest – cough – expectoration – fever
  - **Cardiac** :
    - Ask for symptoms of ardai disease (CHD)
      - Dyspnea & sweating & difficult suckling with feeding (if ypung)
      - Dypnea & easy fatigability (if old child)
      - Orthopnea
  - **Neurological** :
    - Hypotonia : abdominal distention
  - **Endocrianal** :
    - DM
    - Hypothyrodissm : sleepness – lazy
- **Complications** :
  - **Hf :** dysnea – LL edema – hepatic congestion
  - **Leukemia** :
    - *Prolonged fever*
    - Arthalgia & arthritis
    - *Purpuric eruptions*

        - Any swelling (*lymphadenopathy*)
        - Reapted infections
        - *Pallor*
    - **Recurrent chest infections** *if it wasn't complain*
- **Investigations & TTT** ;
    - X-ray – echo – karyotyping
    - Any TTT taken : steroids – l thyroxin

FAMILY HISTORY : *soIMP*
- *Maternal age*
- *Previous abortions*
- Similar conditions in family
- Consanguinity

Examination

GENERAL EXAMINATION :
- **Vital signs**
- t**Measuremen**s
- **Head aand neck** :
    - Skull : flat occiput , small head circumference
    - Eye examination :
        - Lateral upward slanting of eye
        - Medial epicanthal fold
        - Speckled iris
    - Nose :
        - Short depressed nasal bridge
    - Ear :
        - Low seated ear
        - Underdeveloped lobule
        - Overfolded helix
    - Mouth:
        - Small oral cavity due to micrognathia
        - protruded fissured tongue
    - Neck : short broad
- **Hands** :
    - Simian crease
    - Short broad fingers
    - Clinodactyl
- **Feet** :
    - Short & broad
    - Gap between 2^{nd} & 3^{rd} toes
- **Cardiac examination** :
    - Auscultation for CHD the commonest of them is AV cushing defect
    - Inspection for pericardial bulge or any pulsations
- **Neurological examination** :
    - Examine tone for hypotonia

Rickets

COMPLAINT :

- Delayed walking & delayed dentition
- Chest infections
- Convulsions
- Polyuria & polydepsia

PRESENT HISTORY :

- **Analysis of complaint** :
  - Motor development .
- **Aetiology** :
  - Nutritional history detailed especially :
    - Weaning : ask about foods containing vit D & Ca as خضراوات – كبده- سمك– زبادي-بيض
    - Exposure to sun
    - Delayed weaning
- **Symtpmos of disease**:
  - Mental development : normal (to differentiate from other causes of motor & mental delay)
  - Head : Delayed dentition
  - Deformities Exterimities (do you notice any convexity of limbs) & chest – spine
  - Excessive sweating
  - Muscles & ligaments : hypotonia :Abdominal distention
- **Complications** :
  - Recurrent chest infections
  - Iron deficiency Anemia (pallor)
  - Tetany & capopedal spasm
  - Pathological fractures
  - Constipation
- **Exclude non nutritional rickets**:
  - Renal rickets :
    - Polyurira – polydipsia
  - Hepatic rickets ;
    - Jaundice –fevr – abdominal distention
  - Malabsorption :
    - Chronic diarrhea

- **Investigations & TTT** :
  - X-ray / serum Ca & po4
  - Vitamin D injections how many ? & Ca as TTT

PERINATAL HISTORY :

History of prematurity & twins

Mahmoud Behairy

Examination

GENERAL EXAMINATION :

- **Measure height or length** – measure upper to lower segment proportion
- **Head** :
  - Skull circumference : enlarged
  - Size of anterior fontanelle: delayed closure
  - Skull shape : square shaped skull
  - Teeth eruption : Delayed dentition
  - Craniotabes : pressure on occipital bone give senestion of pressing a ping bong ball
- **Extremities** :
  - Upper limb : Broad ends of long bones at wrists / convexity of radius & ulna
  - Lower limb : Marfan sign / detect bow legs and knock knees / broad end of ankle

SYSTEM EXAMINATION :

- **Chest** :
  - Inspection for detection of :
    - Harrison sulcus
    - Longitudinal sulcus
    - Rosary beads
    - Pigeon chest
- **Spine** :
  - Inspect for :
    - scoliosis
    - Kyphosis (on sitting) & Check if it is correctable or not (should be correctable when straightening the back)
    - lumbar lordosis when standing
- **Abdominal examination** :
  - Inspection for
    - Abdominal distention : from hypotonia of abdominal muscles
  - Palpation & percussion ;
    - Ptosis of liver & spleen due to laxity of ligaments and diminished capacity of the chest
- **Neurological** :
  - Less important only if history with convulsions and capopedal spasm you should examine for latent tetany

Diagnosis :

Vitamin D deficiency rickets due to faulty weaning complicated by recurrent chest infections , deformities and stunted growth

Neonatal Jaundice

COMPLAINT : yellowish skin discoloration

PRESENT HISTORY :

- **Analysis of complaint :**
  - **Onset** : when did the mother notice the jaundice
  - **Course :** is it increasing ?
  - **Duration** : more than 2 weeks → pathological
- **Searching for the cause** :
  - ***From clinical picture***
    - Color of urine and stool ? (cholestatic or hemolytic)
    - Frequency of stooling
    - Refusing food and vomit every thing (may be septicemia)
    - Sever abdominal distention : (hepatitis)
    - Bleeding from umbilicus or after circumcsion
  - ***From perinatal history*** :
    - **Antenatal** ;
      - TORCH Infections : fever & rash
      - Diabetes & toxemia of pregnancy
      - Drugs & irradiation
    - **Natal** :
      - *Duration of pregnancy* .
      - *Type of delivary* :
        - C.S : why ?? → obstructed labor (failure of VD) – or preeclampsia
        - VD :
          - where (home or hospital)
          - period from true labor pain till labour (for prolonged labor & hypoxia)- membrane rupture (how long hours before delivery)
          - Use of forceps or ventose
          - Sedation during labour
      - *Condition of child after birth* :
        - Immediate cry (1^{st} 5 minutes) or delayed
        - Resuscitation required
        - Need for incubation
    - **Post natal** :
      - Cause for *incubation* (cyanosis & jaundice & sepsis & convulsions)
      - Respiratory difficulties
      - History of *meningitis* (fever & convulsions & neck stiffness)
      - History of *trauma* (ICH)

- **Complications** :
  - **Kernecterius :** abnormal movements (convulsions)

- **CP :** rigidity of muscles

VACCINATION HISTORY :

Did he receive any vaccines ?

FAMILY HISTORY (IMP)

- **The usual** (consanguinity – maternal age – abortion)
- **Family history of** :
  - Neonatal jaundice in any baby
    - Did he admitted to NICU ?
    - Did he need phototherapy or exchang transfusion ?
  - Jaundice ,anemia or reapted blood transfusion
  - Liver disease

PREPARED BY

Mahmoud Abdel Ghany Behairy

هذه المذكرة معتمدة علي شرح وملازم كلا من :

1. **الدكتور أبو الأسرار**
2. **الدكتور محمد إسماعيل**
3. **الدكتور مصطفي زكريا**